DETERMINANTS OF HOUSING STRESS: A STUDY IN KUALA LUMPUR

BY

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Pusat Pengajian Perniagaan Islam
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كلية إدارة الأعمال الإسلامية
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ABSTRACT

Kuala Lumpur has generally ranked 96th in the world's most expensive city according to the Worldwide Cost of Living Survey 2017. The issue of rising cost of living in Malaysia is a recurring issue that has hit the country for a long time. This problem is compounded by the sudden increase in house prices in the last 10 years. Housing stress describes a situation where the cost of housing is high relative to household income. A household who wants to own a house need to spend more than 30% of his monthly income for housing cost, which might affect the living expenditure. Hence, this study is carried out is to explore the determinants the housing stress among employees in Kuala Lumpur. Data and information are collected using a questionnaire. The data and information then have been analyzed by using descriptive statistic, multiple linear regression and Pearson correlation using SPSS software. The result shows that 20.9% of respondents in Kuala Lumpur are facing housing stress. This analysis also found that the significant determinants contributing to housing stress are household income, monthly payment of housing loan/financing and types of house loan/financing. Hence, the government may need to restructuring of income and wages system in big cities like Kuala Lumpur to help people in Malaysia to overcome the housing stress. Besides that, Bank Negara Malaysia should improve and streamlining the Shariah framework and system legislation to keep pace with developments and monitor, the regulation in implementing and practicing the Shariah instruments applicable to Islamic products may help in reducing the housing stress.

Keywords: Housing stress, house price, household income, monthly payment of housing loan/financing and types of house loan/financing

ABSTRAK

Kuala Lumpur secara amnya telah menduduki tempat ke-96 dalam bandar termahal di dunia menurut Worldwide Cost of Living Survey 2017. Isu kenaikan kos sara hidup di Malaysia merupakan isu berulang yang telah melanda negara sejak lama lagi. Masalah ini diburukkan lagi dengan kenaikan harga rumah yang mendadak dalam 10 tahun belakangan ini. Tekanan perumahan menggambarkan keadaan dimana kos perumahan tinggi berbanding pendapan isirumah dimana rumah tangga yang ingin memiliki rumah menghabiskan lebih daripada 30% daripada pendapatan bulanannya untuk kos perumahan, yang mungkin memberi kesan kepada perbelanjaan hidup. Oleh itu, kajian ini dijalankan untuk meneroka penentu ukuran tekanan perumahan di kalangan pekerja di Kuala Lumpur. Data dan maklumat dikumpul melalui kajian literatur dan soal selidik. Data dan maklumat kemudian dianalisis dengan menggunakan analisis deskriptif, coeficient dan korelasi Pearson menggunakan perisian SPSS. Penemuan menunjukkan bahawa 20.9% pekerja mengalami tekanan perumahan dan 79.1% pekerja tidak mengalami tekanan perumahan. Kajian analisis menunjukkan faktor yang penting menyumbang kepada tekanan perumahan adalah pendapan isi rumah, bayaran bulanan pembiayaan rumah. dan jenis pembiayaan rumah. Justeru, kerajaan perlu menyusun semula sistem pendapatan dan upah di bandar untuk membantu pekerja di Malaysia mengatasi tekanan perumahan. Di samping itu, Bank Negara Malaysia harus mempertingkatkan dan memperkemas rangka kerja Syariah dan system perundangan supaya selari dengan perkembangan semasa industri perbankan Islam dan memantau peraturan dalam pelaksanaan dan praktik instrumen Syariah yang berlaku untuk produk Islam boleh membantu dalam mengurangi tekanan perumahan.

Kata kekunci: Tekanan terhadap perumahan, harga rumah, pendapatan isirumah, bayaran bulanan pembiayaan rumah, dan jenis pembiayaan rumah

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Nabilah Binti Haji Abdul Rahman
Master of Islamic Finance and Banking

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LIST OF ABBREVIATIONS

AITAB	Al-Ijarah Thumma Al –Bay"
NAPIC	National Property Information Centre
BNM	Bank Negara Malaysia
DV	Dependent Variable
IV	Independent Variable
KMO	Kaiser-Mayer-Olkin
MIFB	Master of Islamic Finance and Banking
SPSS	Statistical Package for Social Science
UUM	Universiti Utara Malaysia

CHAPTER ONE
INTRODUCTION

1.0 Introduction

This research paper will discuss the determinants of housing stress among employees in Kuala Lumpur. This chapter includes the background of the study, the problem statement of this research, the research question, the research objective, potential significant of this study, the scope of the study, and the limitation of this study. The organization of this dissertation is also included in this chapter.

1.1 Background of study

Home is one of God's most precious gifts to mankind on earth. Humans really need a home for shelter. In addition, the home of a Muslim is a place of worship to Allah (Osman, Rofie, & Zain, 2004). Moreover, Allah S.A.W in the holy Quran (al-Nahl 16: 80) state that;

"And Allah has made for you the houses which have been built, and He has made for you the skins of cattle for shelter, and has made for you all kinds of household goods and ornaments (for your use)"

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APPENDIX A

(QUESTIONNNAIRE)

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DETERMINANTS OF HOUSING STRESS: A STUDY IN KUALA LUMPUR

Dear Sir/Madam,

TO WHOM IT MAY BE CONCERN

I am a postgraduate student on University Utara Malaysia, and currently conducting a survey on Determinants of Housing Stress among employees in Kuala Lumpur. The questionnaire is divided into two sections and you are kindly requested to answer the question in all of the sections. Kindly, help by completing this questionnaire as accurately as possible. Please note that your responses will be treated with utmost confidentiality and would be used purely for academic purposes.

We highly appreciate your co-operations. Thank you in participation of your response.

Yours sincerely,

Nabilah Binti Haji Abdul Rahman
Master Islamic Finance and Banking
Islamic Business School
Universiti Utara Malaysia
06010 sintok,Kedah.

SECTION A: RESPONDENT'S BACKGROUND
BAHAGIAN A:LATAR BELAKANG RESPONDEN

Please tick(/) your answer /Sila tandakan (/) jawapan anda.

1. **Gender/** *Jantina*

Male/*Lelaki* ☐ Female/*Perempuan* ☐

2. ***Race/****Bangsa*

Malay ☐ *Others/Lain-Lain* ☐

3. **Age/** ***Umur*** : (please state/*nyatakan*)

4. **Marital Status/***Status Perkahwinan*

Single/*Bujang* ☐ Married/*Berkahwi* ☐

5. **Highest Educational Level/***Tahap Pendidikan Tertinggi*:

☐ STPM/Diploma ☐ Master/*PHD*

☐ Bachelor's Degree/*Ijazah* ☐ Personal Certification

6. **Working sector/**Sekor pekerjaan

Public sector ☐ Private Sector ☐

Self-employed/ Bekerja Sendiri ☐

7. **Monthly Income/** ***Pendapatan Bulanan:*** ***(please state/ntayakan)***

8. **Total household income (if married)** ***:*** ***(please state/ntayakan)***

Jumlah pendapatan isi rumah (jika berkahwin) :

9. **House pricing** /Harga Rumah:

a) First house/rumah pertama: :

b) Second house (if any)/rumah kedua (jika ada) :

© Third house (if any)/runah ketiga (jika ada) :

10. **Monthly payment for house financing/ loan**
(please state/nyatakan)
Bayaran bulanan pembiayaan/pinjaman rumah

11. **Type of house**/Jenis Rumah

☐ Apartment

☐ Semi detached

☐ Terrace

☐ Others (please state/nyatakan)

12. **Your Current type of housing loan**
Jenis pembiayaan rumah

Conventional ☐

Islamic ☐

SECTION B :INFORMATION TOWARDS HOUSING STRESS
MAKLUMATTERHADAPTEKANANPERUMAHAN

please tick (/) the appropriate answer.

Strongly disagree	Disagree	Not sure	Agree	Strongly agree
Sangat tidak setuju	*tidak setuju*	*Tidak pasti*	*setuju*	*Sangat setuju*
1	2	3	4	5

No.	Statement/*Kenyataan*	1	2	3	4	5
	LIFESTYLE					
13.	I spend heavily on foods **Saya memperuntukkan perbelanjaan yang lebih untuk makanan**		2	3	4	5
14.	I spend heavily on leisure **Saya memperuntukkan perbelanjaan yang tinggi untuk melancong dan aktiviti mengisi masa lapang**	1	2	3	4	5
15.	I spend heavily on vehicle's maintenance/accessories **Saya memperuntukkan perbelanjaan yang tinggi untuk mencantikkan kenderaan saya**	1	2	3	4	5
16.	. I spend heavily on branded clothing/luxury item **Saya memperuntukkan perbelanjaan** yang tinggi pada pakaian yang ber jenama/mewah	1	2	3	4	5
17.	I spend heavily on donation and charity **Saya memperuntukkan perbelanjaan yang tinggi untuk bersedekah dan kebajikan**	1	2	3	4	5
	AVAILABILITY OF AFFORDABLE HOUSE					
18.	Currently ,a lot of affordable house is provided **Banyak rumah yang tersedia ada sekarang**	1	2	3	4	5
19.	Currently ,the price for availability of housing is too high **Harga rumah yang tersedia ada sekarang terlampau tinggi**	1	2	3	4	5
20.	Currently, affordable house is poorly provided **Rumah mampu milik sekarang kurang disediakan**	1	2	3	4	5

21.	The government provides a lot of affordable house **Kerajaan menyediakan banyak rumah mampu milik**	1	2	3	4	5		
22.	Developer provides a lot of affordable house rather than higher cost **Pemaju menyediakan banyak rumah mampu milik berbanding kos yang lebih tinggi**	1	2	3	4	5		
23.	*FINANCIAL COMMITMENT*							
24.	*I have a relatively high debt* *Saya berhadapan dengan jumlah hutang yang agak tinggi*	1	2	3	4	5		
25.	*I spend heavily on my children's education* *Saya memperuntukkan perbelanjaan yang tinggi untuk pendidikan anak*	1	2	3	4	5		
26.	*I spend heavily on household expenses* *Saya memperuntukkan perbelanjaan yang tinggi untuk isi rumah*	1	2	3	4	5		
27.	*I spend heavily on transportation cost* *Saya memperuntukkan perbelanjaan yang tinggi untuk kos pengangkulan*	1	2	3	4	5		
28.	*I spend heavily on takaful / insurance* *Saya memperuntukkan perbelanjaan yang tinggi untuk perlindungan takaful/insuran*	1	2	3	4	5		

THANK YOU

APPENDIXB

(FACTOR ANALYSIS)

(A) Factor Analysis for Availability of Affordable House

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.478
Bartlett's Test of Sphericity	Approx. Chi-Square	254.952
	Df	120
	Sig.	.000

Table 3.4 Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	4.019	25.121	25.121	4.019	25.121	25.121	3.234
2	3.050	19.063	44.184	3.050	19.063	44.184	2.618
3	2.100	13.126	57.309	2.100	13.126	57.309	2.071
4	1.564	9.776	67.086	1.564	9.776	67.086	3.094
5	1.109	6.933	74.019	1.109	6.933	74.019	2.076
6	.891	5.568	79.587				
7	.875	5.467	85.054				
8	.586	3.663	88.717				
9	.498	3.115	91.832				
10	.398	2.488	94.320				
11	.281	1.755	96.075				
12	.235	1.470	97.545				
13	.184	1.150	98.695				
14	.099	.621	99.316				
15	.065	.405	99.721				
16	.045	.279	100.000				

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

Table 3.5 Component Matrix[a]

	Component				
	1	2	3	4	5
FC4	.780	.303			
L3	.777	-.366			
L4	.769			-.304	
FC6	.691			.428	
L5	.668				
L2	.594		.434	-.484	
FC5	.520	.427		.408	
FC3	.315	.816			
AOAH3		.650		-.372	.363
FC1		.635			.344
FC2	.371	.617			.312
AOAH2		.611			
AOAH4			.814	.385	
AOAH5			.725	.510	
AOAH1	.484	-.381	.502		.466
L1		.383	.460	-.351	-.486

Extraction Method: Principal Component Analysis.
a. 5 components extracted.

Table 3.6 Pattern Matrix[a]

	Component				
	1	2	3	4	5
AOAH1	.909		.348		
L3	.829				
L4	.682				
L5	.561			.370	
AOAH3		.829			
FC1		.698			
AOAH2		.673			
FC2		.606		.464	
AOAH4			.907		
AOAH5			.902		
FC5				.865	
FC4				.803	
FC6				.785	
L1					-.843
L2	.532				-.674
FC3		.426		.389	-.611

Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.
a. Rotation converged in 13 iterations.

(B) Factor Analysis for Lifestyle

Table 3.7 Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	4.019	25.121	25.121	4.019	25.121	25.121	4.004
2	3.050	19.063	44.184	3.050	19.063	44.184	3.066
3	2.100	13.126	57.309	2.100	13.126	57.309	2.111
4	1.564	9.776	67.086				
5	1.109	6.933	74.019				
6	.891	5.568	79.587				
7	.875	5.467	85.054				
8	.586	3.663	88.717				
9	.498	3.115	91.832				
10	.398	2.488	94.320				
11	.281	1.755	96.075				
12	.235	1.470	97.545				
13	.184	1.150	98.695				
14	.099	.621	99.316				
15	.065	.405	99.721				
16	.045	.279	100.000				

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

Table 3.8 Component Matrix[a]

	Component		
	1	2	3
FC4	.780	.303	
L3	.777	-.366	
L4	.769		
FC6	.691		
L5	.668		
L2	.594		.434
FC5	.520	.427	
FC3	.315	.816	
AOAH3		.650	
FC1		.635	
FC2	.371	.617	
AOAH2		.611	
AOAH4			.814
AOAH5			.725
AOAH1	.484	-.381	.502
L1		.383	.460

Extraction Method: Principal Component Analysis.
a. 3 components extracted.

Table 3.9 Pattern Matrix[a]

	Component		
	1	2	3
L3	.824		
L4	.797		
FC4	.721	.385	
L5	.676		
FC6	.664		
L2	.625		.423
AOAH1	.560		.506
FC3		.855	
FC2		.639	-.320
AOAH3		.627	
FC1		.626	
AOAH2		.591	
FC5	.445	.474	
L1		.442	.435
AOAH4			.818
AOAH5			.723

Extraction Method: Principal Component Analysis.
Rotation Mothod: Oblimin with Kaiser Normalization.

(C) Factor Analysis Financial Commitments

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.672
Bartlett's Test of Sphericity	Approx. Chi-Square	66.689
	Df	36
	Sig.	.001

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	4.647	51.628	51.628	4.647	51.628	51.628	3.642
2	1.331	14.792	66.419	1.331	14.792	66.419	3.182
3	1.097	12.188	78.607	1.097	12.188	78.607	2.513
4	.656	7.294	85.901				
5	.445	4.946	90.847				
6	.368	4.091	94.938				
7	.268	2.981	97.919				
8	.133	1.476	99.395				
9	.054	.605	100.000				

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

APPENDIXC

(DESCRIPTIVE STATISTIC)

(A) Level of Variable

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
LMEAN	301	1.00	5.00	2.8352	.63263	-.501	.140	1.022	.280
FCMEAN	301	1.20	5.00	3.2219	.66787	-.391	.140	.354	.280
AOAHMEAN	301	1.00	4.33	2.4850	.70884	-.043	.140	.030	.280
TOLMEAN	301	1.00	2.00	1.2525	.43517	1.145	.140	-.693	.280
HOPMEAN	301	11000.00	776666.67	103522.0244	74192.09622	3.315	.140	23.467	.280
MPHLMEAN	301	124.00	8000.00	1478.5354	894.44103	2.496	.140	11.997	.280
HIMEAN	301	1200.00	30000.00	7635.4817	4460.77429	1.607	.140	4.454	.280
DVMEAN	301	1.00	2.00	1.3671	.38594	.497	.140	-1.160	.280
Valid N (listwise)	301								

APPENDIXD

(RELIABILITY TEST)

(A) Reliability Test For Lifestyle

Reliability Statistics

Cronbach's Alpha	N of Items
.742	5

Item Statistics

	Mean	Std. Deviation	N
L1	3.6844	.94895	301
L2	2.8073	.89596	301
L3	2.3488	.89139	301
L4	2.3256	.94179	301
L5	3.0100	.82658	301

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
L1	10.4917	7.344	.344	.758
L2	11.3688	6.480	.597	.662
L3	11.8272	6.750	.531	.687
L4	11.8505	6.234	.613	.654
L5	11.1661	7.272	.460	.713

(B) Reliability Test For Availability of Affordable House

Reliability Statistics

Cronbach's Alpha	N of Items
.551	3

Item Statistics

	Mean	Std. Deviation	N
AOAH1	2.5449	.96029	301
AOAH4	2.8073	.89596	301
AOAH5	2.1030	1.06428	301

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
AOAH1	4.9103	2.695	.287	.564
AOAH4	4.6478	2.636	.373	.441
AOAH5	5.3522	2.049	.440	.316

(C) Reliability Test For Financial Commitment

Reliability Statistics

Cronbach's Alpha	N of Items
.698	5

Item Statistics

	Mean	Std. Deviation	N
FC1	2.9103	.82982	301
FC2	3.2392	1.29200	301
FC3	3.6645	.94359	301
FC4	3.2060	.92237	301
FC5	3.0897	.90660	301

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
FC1	13.1993	8.807	.336	.693
FC2	12.8704	6.673	.421	.684
FC3	12.4452	7.268	.588	.594
FC4	12.9037	7.681	.512	.627
FC5	13.0199	7.946	.466	.646

APPENDIXE

(NORMALITY TEST)

(A) Normality Test

Descriptives

			Statistic	Std. Error
Lifestyle	Mean		2.8352	.03646
	95% Confidence Interval for Mean	Lower Bound	2.7635	
		Upper Bound	2.9070	
	5% Trimmed Mean		2.8554	
	Median		3.0000	
	Variance		.400	
	Std. Deviation		.63263	
	Minimum		1.00	
	Maximum		5.00	
	Range		4.00	
	Interquartile Range		.80	
	Skewness		-.501	.140
	Kurtosis		1.022	.280
Availability	Mean		3.2372	.02593
	95% Confidence Interval for Mean	Lower Bound	3.1862	
		Upper Bound	3.2882	
	5% Trimmed Mean		3.2376	
	Median		3.2000	
	Variance		.202	
	Std. Deviation		.44983	
	Minimum		1.00	
	Maximum		4.40	
	Range		3.40	

	Interquartile Range		.40	
	Skewness		.480	.140
	Kurtosis		2.763	.280
Financial	Mean		3.2292	.03836
	95% Confidence Interval for Mean	Lower Bound	3.1538	
		Upper Bound	3.3047	
	5% Trimmed Mean		3.2480	
	Median		3.2000	
	Variance		.443	
	Std. Deviation		.66549	
	Minimum		1.20	
	Maximum		5.00	
	Range		3.80	
	Interquartile Range		1.00	
	Skewness		-.420	.140
	Kurtosis		.414	.280

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Lifestyle	.142	301	.000	.962	301	.000
Availability	.123	301	.000	.946	301	.000
Financial	.086	301	.000	.978	301	.000

APPENDIXF

(MULTIPLE REGRESSION)

FACTORS OF CONTRIBUTING TO HOUSING STRESS

Descriptive Statistics

	Mean	Std. Deviation	N
DVMEAN	1.3671	.38594	301
LMEAN	2.8352	.63263	301
FCMEAN	3.2219	.66787	301
MPHLMEAN	1478.5354	894.44103	301
HOPMEAN	103522.0244	74192.09622	301
AOAHMEAN	2.4850	.70884	301
TOLMEAN	.7475	.43517	301
HIMEAN	7635.4817	4460.77429	301

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	HIMEAN, AOAHMEAN, TOLMEAN, FCMEAN, HOPMEAN, LMEAN, MPHLMEAN[b]		Enter

a. Dependent Variable: DVMEAN

b. All requested variables entered.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.645[a]	.416	.402	.29852

a. Predictors: (Constant), HIMEAN, AOAHMEAN, TOLMEAN, FCMEAN, HOPMEAN, LMEAN, MPHLMEAN

b. Dependent Variable: Housing Stress

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	1.217	.112		10.906	.000	.997	1.437		.022	.021	.733	1.365
	LMEAN	.015	.032	.024	.467	.641	-.048	.077		0.12	.009	.807	1.240
	FCMEAN	.008	.029	0.10	.199	.842	-.051	.062		.487	.427	.351	2.847
	MPHLMEAN	.000	.000	.720	9.551	.000	.000	.000		.009	.007	.409	2.447
	HOPMEAN	5.555E-8	.000	.011	.153	.879	.000	.000		-.020	-.015	.873	1.145
	AOAHMEAN	-.009	.028	-.01	-.345	.730	-.060	.042		1.00	.078	.993	1.007
	TOLMEAN	.068	.040	.07	1.712	.088	-.010	-.148		-.533	-.482	.621	1.810
	HMEAN	-5.290E-5	.000	-.611	10.788	.000	.000	.000					

a. Dependent Variable: DVMEAN

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	18.574	7	2.653	29.777	.000[b]
	Residual	26.110	293	.089		
	Total	44.684	300			

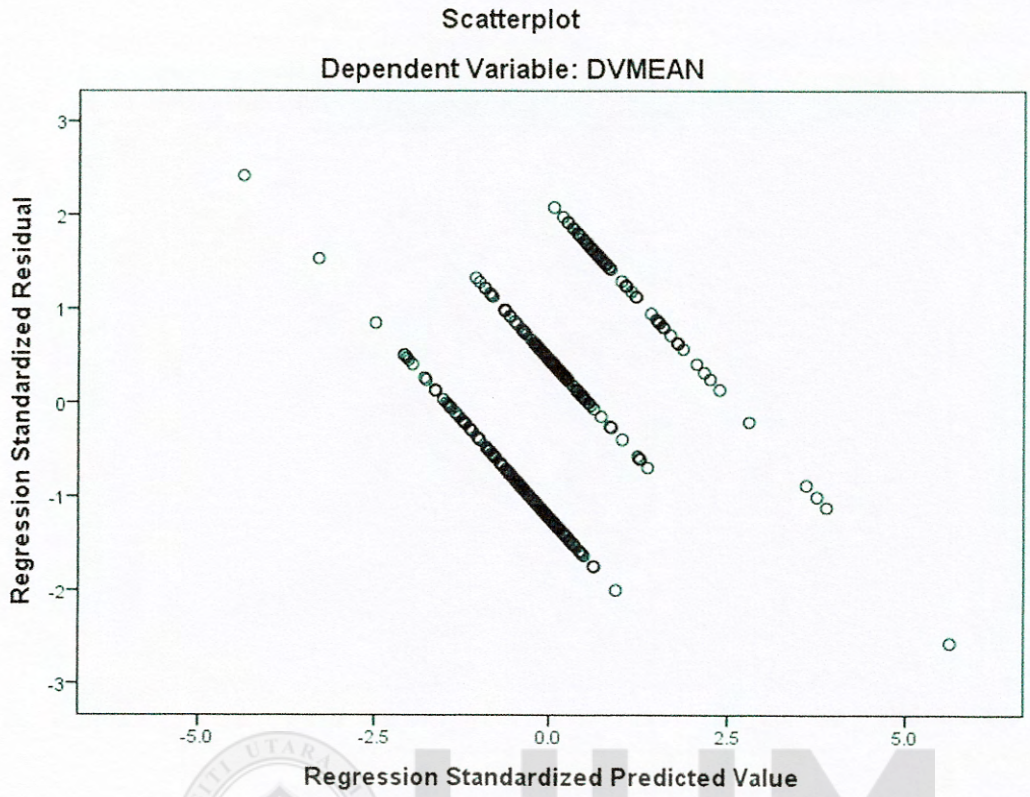
a. Dependent Variable: DVMEAN

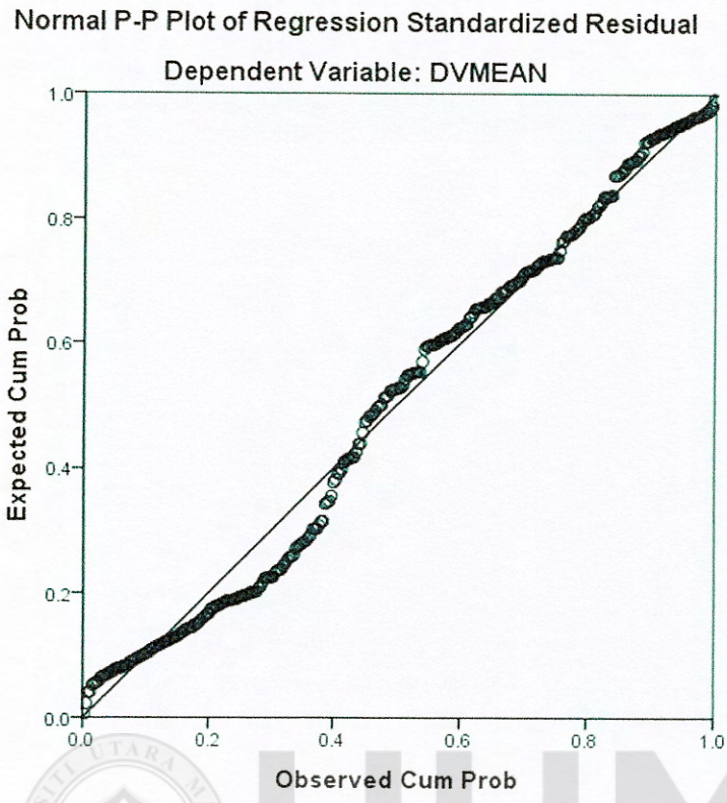
b. Predictors: (Constant), HIMEAN, AQAHMEAN, TOLMEAN, FCMEAN, HOPMEAN, LMEAN, MPHLMEAN

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	.2776	2.7667	1.3671	.24883	301
Std. Predicted Value	-4.379	5.625	.000	1.000	301
Standard Error of Predicted Value	.022	.231	.045	.018	301
Adjusted Predicted Value	.1710	2.9935	1.3672	.25568	301
Residual	-.76668	.72241	.00000	.29501	301
Std. Residual	-2.568	2.420	.000	.988	301
Stud. Residual	-2.924	2.592	.000	1.004	301
Deleted Residual	-.99349	.82904	-.00010	.30491	301
Stud. Deleted Residual	-2.962	2.618	.000	1.006	301
Mahal. Distance	.691	178.356	6.977	11.688	301
Cook's Distance	.000	.316	.004	.020	301
Centered Leverage Value	.002	.595	.023	.039	301

a. Dependent Variable: DVMEAN





APPENDIX

G

(CORRELATION)

		DVMEAN	LMEAN	FCMEAN	MPHLMEAN	HOPMEAN	AOAHMEAN	TOLMEAN	HIMEAN
Pearson Correlation	DVMEAN	1.000	-.030	-.115	.396	.307	-.050	.058	-.203
	LMEAN	-.030	1.000	.384	.181	.185	.292	.028	.307
	FCMEAN	-.115	.384	1.000	.045	.063	.157	-.018	.268
	MPHLMEAN	.396	.181	.045	1.000	.761	-.070	-.042	.548
	HOPMEAN	.307	.185	.063	.761	1.000	-.128	-.001	.423
	AOAHMEAN	-.050	.292	.157	-.070	-.128	1.000	.024	-.013
	TOLMEAN	.058	.028	-.018	-.042	-.001	.024	.000	-.018
	HIMEAN	-.203	.307	.268	.548	.423	-.013	-.018	1.000
Sig. (1-tailed)	DVMEAN		.303	.023	.000	.000	.194	.160	.000
	LMEAN	.303		.000	.001	.001	.000	.317	.000
	FCMEAN	.023	.000		.216	.137	.003	.381	.000
	MPHLMEAN	.000	.001	.216		.000	.112	.236	.000
	HOPMEAN	.000	.001	.137	.000		.013	.495	.000
	AOAHMEAN	.194	.000	.003	.112	.013		.341	.409

	TOL MEAN	.160	.317	.381	.236	.495	.341		.381
	HIMEAN	.000	.000	.000	.000	.000	.409	.381	
N	DVMEAN	301	301	301	301	301	301	301	301
	LMEAN	301	301	301	301	301	301	301	301
	FCMEAN	301	301	301	301	301	301	301	301
	MPHLMEAN	301	301	301	301	301	301	301	301
	HOPMEAN	301	301	301	301	301	301	301	301
	AOAHMEAN	301	301	301	301	301	301	301	301
	TOL MEAN	301	301	301	301	301	301	301	301
	HIMEAN	301	301	301	301	301	301	301	301